DR. REZSŐ VÁMOS
1913--1977

He was born in Barcs (County Somogy), from a teacher family. Having completed his middle-school studies, he continued studying in the branch natural history-chemistry of the Teachers' Training College. After taking his diploma, he functioned as a teacher in a higher elementary school, for a short time.

From 1939, he did his active military service, then he worked as a teacher of chemistry in the Cadet School. From 1944, he was in service in the field. Returning from the prisonership of war, he was discharged from the army in 1946. After being discharged, he first worked as a researcher in the soil-microbiological laboratory of the Botanical Institute of the Forestry Engineering College in Sopron.

In 1952, he came to the University in Szeged where he continued his research and educational work first in the Botanical Institute, later in the Institute of Plant Physiology.

His scientific research-work initially included the performance of the quantitative determination of soil bacteria with a new method. Later he changed to investigating into the microbiological processes of the intermittently inundated soils. In the course of this, he mainly dealt with the development of anaerobic conditions, the problem of manganese, iron, nitrate, sulphate and phosphate reduction. From among the reductive processes, he mainly studied sulphate reduction, the biological soda-formation, later the circulation of sulphur in the formation of the alkali soil profiles. Because as a result of sulphate reduction hydrogen sulphide is formed, he studied for a long time the physiological effects of hydrogen sulphide, thus the destruction of rice-roots, the fish destructions caused by hydrogen sulphide and ammonia. He investigated into the microbiological conditions, theoretical and practical problems of the Tisza Dead Arms for years.

His publications issued on this subject in home and foreign scientific reviews made his name known. In this country, he was the official expert of the Ministry for Agriculture and Food Supply. The producing institutions frequently took his professional advice, as well.

He was the member of several home and foreign scientific societies. As a member of the Tisza Research Working Committee since the formation of this society, he took an active part until his death in investigating into the Tisza Dead Arms. He

often appeared among the rapporteurs of the Tisza Research Conferences. With his exemplary and devoted work he exerted a stimulating effect on the activity of his junior colleagues.

As an instructor, he participated for twenty years in the instruction of the biological undergraduates. He was a member of the Microbiological Department, organized in 1972, and did not cease, even after his retiring, to be active with his youthful ardour in the domain of research and education.

By his death, the Attila József University in Szeged lost a prominent research worker and educator. He still lives in the mind of his colleagues and former students.

His major scientific monographs are:

György eljárások a talaj baktérium flórjájának mennyiségi meghatározásához (Rapid procedures for the quantitative determination of the bacterial flora of the soil). — Agrártud. Egyetem Erdőmérnöki Karának Évkönyve *1.* 131. Sopron. 1950.

A mikróbaföldrajz kutatásainak legújabb eredményei (Recent results of the researches in the microbial geography). — Agrokémia *7—12.* 1950.

A szulfátredukció szerepe és kimutatása a talajban (Part and demonstration of the sulphate reduction in soil). — Magyar Kémiai Folyóirat 1954.

Microbiological processes in limefree alkali soils. — Acta Biol. Szeged, *1.* 1955.

A szulfátredukáló baktériumok szerepe a rizs barnulásos megbetegedésében (Part of the suphate reducing bacteria in the browning disease of rice). — MTA Agrártud. Oszt. Közl. *8,* 3—7. 1955. (With a co-author).

The role of the soil s excess nitrogen in the „bruzone" of the rice. — Acta Biol. Szeged. *2,* 103—110. 1956.

Chemical examinations of flooded water of the rice. — Nature *157.* 180. 1484. 1957.

Nutritive conditions of rice at the appearance of the blas. — Acta Biol. Szeged. *3,* 239—245. 1957.

Talajbiológiai folyamatok szerepe a rizs „bruzone" betegségében (The part of soil-biological processes in the disease „bruzone"). — MTA Agrártud. Oszt. Közl. *1—3,* 242—250. 1958.

Inhibition of sulphate reduction in waterlogged soils. — Acta Biol. Szeged. *4,* 1973—178. 1958.

Inhibition of sulphate reduction in paddy soil. — Nature *182,* 1688. 1958.

H_2S the cause of bruzone (aki-ochi) disease of rice. — Soil and Plant Food *1,* 37—40. Tokyo 1958.

Bruzone disease of rice in Hungary. — Plant and Soil *11,* 65—77. 1959.

The brown coloration in the tissues of rice plant caused by hydrogen sulphide. — Acta Agronom. *9,* 117—128. 1959.

Antibacterial substances of coniferous seedlings at stages of their development. — Nature *184,* 4690. 1959. (With a co-author).

Significance of application of nitrate fertilizers in paddy soil. — Current Science (Bangor) *28,* 406—407. 1959. (With a co-author).

Halpusztulás a Tisza holtágaiban (Fish destruction in the Tisza Dead Arms). — Halászat *7,* 92. 1960.

A study on the Eh conditions of the rhizosphere in rice varieties resistant and susceptible to „bruzeone". — Acta Agron. *11,* 369—382. 1962. (With a co-author).

Wasserblüte und Fischsterben. — Acta Biol. Szeged. *8,* 103—114. 1963. (With a co-author).

A hidrogén okozta tömeges halpusztulás utólagos kimutatása (Subsequent demonstration of the hydrogen-engendered mass-destruction of fishes). — Hidrol. Közl. *10,* 478—480. 1967.

Die bodenbedingten und klimatischen Faktoren der Unfallkrankheit der Fichtenkeimlinge — Arch. Forstwes. *17,* 287—295. 1968.

Vizsgálatok a tiszai holtágak tömeges halpusztulásainak megelőzésére (Investigations for preventing the mass-destruction of fishes in the Tisza Dead Arms). Halászat *3,* 84—85. 1971.

Palacsi halpusztulás (Fish destruction at Palics). — Halászat *4,* 100—101. 1971.

Miért nincsenek a Duna holtágakban tömeges halpusztulások? (Why are there no mass-destructions of fishes in teh Danube Dead Arms?) — Hidrol. Közl. *10,* 450—454. 1971.

Die ökologischen Faktoren des durch H_2S und HN_0 bedingten Fischsterbens. — Tiscia (Szeged) *7,* 5—12. 1972. (With a co-author).

Dr. Rezső Vámos published 87 scientific monographs in Hungarian and foreign languages until his death.

Farewell

to Dr. REZSŐ VÁMOS *by Dr.* IMRE HORVÁTH, *professor of the University in Szeged, Head of the Botanical Department, President of the Tisza-Research Working Committee*

In the name of the Tisza-Research Working Committee, I take leave of Dr. REZSŐ VÁMOS, lecturer in our university, a research worker of merit in the Tisza-research. Everybody liked his always gay, friendly individuality. He was not only our co-worker but our friend, as well.

The province of his research work was the microbiological investigation into the water-covered soils. His studies first dealt with the genetics of alkali soils, then with the diseases of rice connected with the soil, as well. But he achieved most of his results in researching rivers, and first of all the Tisza. He joined the Tisza research at the beginning of that and continued performing it actively for twenty years, until the last day of his life. His theory, and practice, elaborated on the basis of clearing up the course of fish and bird death consequent upon the hydrogen-sulphide pollution in the dead arms of rivers and mainly of the Tisza, and of analysing the causes of that, for preventing the desctruction, are of great importance in a practical field, as well.

The results of his investigations have been applied in the artificial fish-breeding, too. He was an outside worker of the fishery at Fehér-tó and dealt with good results with the problems of pisciculture in the lake Fehér-tó.

Apart from the scientific research work, he actively participated in the university education, as well. He taught agrobiology for about two decades and made generations of students popular with that, as a lecturer in the Plant Physiological and later of the Microbiological Departments.

He had a lucid mind of good combinative talent. His interest included a wide field. But primarily the practical problems of the modern way of life stood near him. In addition to biology, he was also interested in the problems of geography and agricultural sciences. He dealt readily, one could almost say as a hobby, with history, as well, first of all with the part of Szeged in the war of independence in 1848—1849.

He was a member of not one scientific society at home and abroad. He has bequeathed to us a rich scientific heritage which has aroused the interest of professional circles not only at home but also abroad, both in theoretical and practical relations.

The words of the last farewell are staggering even for a biologist. In vain we know that birth and death are equally natural and unavoidable biological laws. Man perishes by death individually but in his products he survives. In this way you will survive with your products among us! And we shall preserve as sacred the remembrance of your dear, friendly individuality!